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薄鳞蕨属(中国蕨科)一新组合

张宪春　张钢民
(中国科学院植物研究所　北京 100093)

A new combination in *Leptolepidium* (Pteridophyta: Sinopteridaceae)

ZHANG Xian-Chun　ZHANG Gang-Min
(*Institute of Botany, the Chinese Academy of Sciences*, Beijing 100093)

Abstract The genus *Leptolepidium* (Sinopteridaceae) is maintained and the species *Cheilanthes duthiei* from the Himalayas is transferred to it.

Key words *Leptolepidium*; *Cheilanthes duthiei*; *Leptolepidium duthiei*; New combination

The genus *Leptolepidium* was separated from the cheilanthoid fern genus *Aleuritopteris* Fée by K.H. Shing & S.K. Wu (Wu, 1979). It can be easily distinguished from *Aleuritopteris* by its thin, summer green leaves, and thin, broad, concolorous scales. The genus has not been widely accepted, and was subsequently reduced to *Aleuritopteris* (Saiki, 1984) or merely sunk into *Cheilanthes* together with *Aleuritopteris* and *Sinopteris* (Tryon *et al.*, 1990; Fraser-Jenkins, 1992, 1997). Since the concept of *Cheilanthes* is still unstable and the generic taxonomy of the cheilanthoid ferns is still in dispute, it seems unwise at the present time to follow the treatment of putting everything in the apparently already mixed and much confused genus *Cheilanthes*, especially when dealing with some distinct and closed related Asian plants, such as well known species like *Leptolepidium dalhousiae*, *L. kuhnii*, and *L. subvillosum*. As circumscribed, *Leptolepidium* is a rather natural group of ferns, with about 4 ~ 5 good species distributed in temperate Asia, from Siberia, Korea, Japan, N & SW China to the Himalayas.

The names already established in *Leptolepidium* are *L. caesium* (Christ) K. H. Shing et S. K. Wu, *L. dalhousiae* (Hook.) K. H. Shing et S. K. Wu, *L. kuhnii* (Milde) K. H. Shing et S. K. Wu, *L. kuhnii* var. *brandtii* (Franch. et Sav.) K. H. Shing et S. K. Wu, *Leptolepidium leptolepis* (Fraser-Jenk.) Kholia et Punetha, *L. subvillosum* (Hook.) K. H. Shing et S. K. Wu, *L. subvillosum* var. *dilatatum* (Brause) K. H. Shing et S. K. Wu, *L. subvillosum* var. *tibeticum* Ching et S. K. Wu, and *L. tenellum* Ching et S. K. Wu. Revision of the above species is now being undertaken in the National Herbarium (PE) of China in Beijing.

During the course of studying the fern collections in Europe, the senior author had a chance to check the type of *Cheilanthes duthiei* Baker in K and BM, and consequently feel the necessity to transfer it to *Leptolepidium*.

Leptolepidium duthiei (Baker) X. C. Zhang et G. M. Zhang, comb. nov.

Cheilanthes duthiei Baker in Ann. Bot. 5: 210. 1891; Bedd. Handb. Ferns Brit. India Suppl. 20. 1892; Hope in J. Bombay Nat. Hist. Soc. 13: 242, pl. 15. 1900; Khullar An Ill. Fern

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Fl. W. Himalaya 1: 203, pl. 74. 1994. ≡ *Aleuritopteris duthiei* (Baker) Ching in Bull. Fan Mem. Inst. Biol. Ser. 2, 1: 271. 1949. TYPE: India. Garwhal, Duthie 5144 (K!).

Cheilanthes yatungensis Ching (19-Ⅲ-1932) in herb. China. Xizang, Yadong, 27°51′N, 88°35′E, H. E. Hobson s.n.(K!), 1897.

India. Garwhal, Duthie 5144 (K).

Nepal. Bimtakothi, 3810 m(12500 ft), in shade of dwarf bushes, D. G. Lowndes L.1464 (BM), 26-Ⅷ-1950; east of Lhalibe Pahar, 3962 m(13000 ft), Stainton, Sykes & Williams 4594 (BM), 25-Ⅸ-1954.

China. **Xizang** (Tibet): Chumbu Valley, Yadong, 3962 m(13000 ft), Bor & Kirat Ram 20660 (BM), 23-Ⅵ-1945; Yadong, 27°51′N, 88°35′E, H. E. Hobson s.n. (K), 1897; above Singma Khangchung, alt. 3505 m(11500 ft.), F. Spencer Chapman 146, 165 (K), 21-Ⅷ-1936; Lhasa, 2 miles Southeast of Lhasa, alt. 3658 ~ 3962 m(12000 ~ 13000 ft), F. Spencer Chapman 1183 (K), 1-Ⅹ-1936; Lhünzhub, Xizang Med. Exped. 1955 (PE), alt. 4400 m; Zayü, Tsa-wa-rung, C. W. Wang 66278 (PE), on rocky places, alt. 3400 m. **Sichuan**: Xiangcheng, W. M. Chu *et al*. 16932 (PE, PYU), alt. 4110 m; Yanyuan, Qinghai-Xizang Exped. 12694 (PE), alt. 3600 m.

Distribution: Confined to the Himalayas at high elevations.

This species is easily distinguished from other ones in this genus by its lamina being not farinose nor villose; by stipe and rhachis being sulcate; and by costae, costules and veins with many short, brown to dark, capitate glands underneath; moreover, the indusia are separate, each at the apex of a single veinlet, glabrous, discontinuous, irregularly toothed and each sorus having only 2 ~ 4 sporangia. It is apparently a rare species, occasionally collected from W Himalaya and SW China (Sichuan and Xizang), at high altitudes from 3600 ~ 4400 m.

According to Hope (1900), Duthie gathered two collections from Garwhal, the type (Duthie 5144) is near Kuari Pass, 3658 ~ 3962 m(12000 ~ 13000 ft); another one (Duthie 5196) is from east of Dhakwani, 3353 ~ 3658 m(11000 ~ 12000 ft). Hope (1900) was the first to publish a nice illustration of this species, and pointed out that the name and the description by Baker had already been published in the Catalogue of the Ferns in the Saharanpur Herbarium in 1890, prior to its being printed in Ann. Bot.

The specimens from Xizang superficially resemble *Cheilosoria hancockii* (*Cheilanthes hancockii*) in form with the triangular frond and the triangular basal pinnae the largest. They are rather distinct from the only type (Duthie 5144) of this species, which is an aberrant, small specimen. But, all of them share the unique capitate glands that is the main difference between this species and the others.

Saiki's (1984) report of this species from Indonesia(Java) and the Philippines is doubtful.

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摘要 承认中国蕨科薄鳞蕨属的独立性,把喜马拉雅地区分布的 *Cheilanthes duthiei* 新组合到了该属。

关键词 薄鳞蕨属; *Cheilanthes duthiei*; 杜氏薄鳞蕨属; 新组合

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